

maintaining a heated aqueous electrolyte solution comprising sulfuric acid and manganese sulfate in said electrolytic cell, said solution having manganese sulfate therein in an amount whereby manganese ion is present in the range of from about 5 to about 50 grams of manganese ion per liter of solution, the amount of sulfuric acid in said electrolyte solution being greater than [or equal to 1.2] 1.6 times the amount of manganese ion therein; and

applying electric current to said electrodes whereby said anodic electrode current density is in the range of from about 2.5 to about 6 amperes per square foot and said high discharge capacity EMD produced is deposited on said anodic electrode.

Please amend claim 7 as follows:

7. (Twice Amended) A method of producing EMD having a high discharge capacity at high discharge rates by electrolysis in an electrolytic cell having cathodic and anodic electrodes disposed therein comprising the steps of:

maintaining an aqueous electrolyte solution comprised of sulfuric acid and manganese sulfate in said electrolytic cell at a temperature in the range of from about 95°C to about 98°C, said solution having sulfuric acid therein in an amount in the range of from about 20 to about 60 grams of sulfuric acid per liter of solution and having manganese sulfate therein in an amount whereby manganese ion is present in the range of from about 5 to about 50 grams of manganese per liter of solution, the amount of sulfuric acid in said electrolyte solution being greater than [or equal to 1.2] 1.6 times the amount of manganese ion therein; and

applying electric current to said electrodes whereby said anodic electrode current density is in the range of from about 2.5 to about 4.5 amperes per square foot and said high discharge capacity EMD produced is deposited on said anodic electrode.